

REMARKS

Reconsideration of this application is respectfully requested. Claims 37-59 remain pending. All remarks herein are directed to the claims as amended above.

Statement of Substance of Interview with Examiner:

An interview was conducted on July 6, 2006 between the Examiner and applicant's representative Ronald Shea. Distinctions between claim 37 and the cited art were discussed. An amendment was proposed clarifying that the switch circuitry of claim 37 was controlled by signals received from both the filter circuit and from the select circuit. The Examiner provisionally agreed that the proposed amendments render the claims allowable over the cited references, subject to the discovery of relevant prior art.

Rejection Under 35 U.S.C. § 103(a)

Claims 37-42-44 and 46-48 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent App. No. 09/758,884 to Chow et al. (hereinafter "Chow") and U.S. Patent No. 5,619,713 to Baum et al. (hereinafter "Baum.") in view of U.S. Patent No. 6,671,771 to Perloff.

Claim 37 recites, in part,

switch circuitry to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit

Baum describes an apparatus for realigning database fields through the use of a crosspoint switch (Baum, Title). Assuming, arguendo, that the cross point switch of Baum corresponds to the switch circuitry of claim 37, Baum teaches that an extraction mask controls

the switching of the crosspoint switch (Baum, col. 32, lines 42-45). As noted in claim 37 recited above, the switch circuitry of claim 37 is not controlled by any sort of mask, but rather, is dually controlled by both a filter circuit and a select circuit. Nowhere does Baum teach or suggest such switch circuitry controlled by signals received from both a filter circuit and from a select circuit, as recited in claim 37.

Chow addresses search key width problems associated with CAM-based classification systems by allowing a reconfigurable selection of payload bits from an input word to be used in the definition of a search key. (Chow Abstract). The position of the relevant payload bits within the incoming packet are identified in a mask generated by a bit mask generator, utilizing both user defined criteria, and information relating to packet type and structure as determined by a packet parser (Chow, paragraph 0041, lines 3-6 and 0044 lines 5-12). The bit mask is equal in length to the incoming packet, and is sent to a search key generator to generate the search key from data in the relevant bit addresses of the input packet (Chow, paragraph 0044, lines 12-16). Each time a mask value of “1” is presented, the search key packer extracts the value of the bit from the corresponding bit address of the input packet (Chow, 0046, 1-17). Because incoming packets and corresponding masks can be, for example, 12,000 bits long, the search key generator can operate in a semi-parallel embodiment. A submask generator receives the mask, and generates sequence of submasks which are used in conjunction with input segments of equal length to generate a search key over a series of cycles. (Chow, paragraphs 0045, 0046 and 0048). However, Chow does not a search key packer or search key generator to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the program circuit and from the select circuit.

Perloff is directed to a hash CAM (Perlof Abstract) with a hash function 202 (Perloff, col.

2, lines 6-9, col 3, lines 20-30). As shown in Figure 2 of Perloff, the hash function is output into the pointer array 204. However, neither the hash function, the pointer array, nor any other element of Perloff discloses or suggests switching circuitry for generating a comparand or search key according to control signals received from a program circuit and a select circuit.

Because neither Chow, Baum nor Perloff disclose or suggest a switch circuit that outputs, as the comparand value, the selected bits from each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit as recited in claim 37, even if Baum, Chow and Perloff could be combined in a manner suggested by the Examiner, their combination still would not disclose or suggest the switch circuitry recited in claim 37, and therefore, would not establish a prima facie case for obviousness. For at least these reasons, neither claim 37, nor claims 42-44 and 46-48 which depend from claim 37, are rendered obvious by Chow, Baum, Perloff, and their combination.

Claim 53 recites in part:

means for outputting, as the comparand value, one or more bits of each of the plurality of segments of input data indicated by the select circuit to be a source of a bit of the comparand value, according to control signals received from the means for storing a plurality of segment select values and from the means for storing filter data.

For reasons discussed in conjunction with claim 37, Applicant submits that, even if Chow, Baum, and Perloff could be combined in a manner suggested by the Examiner, their combination still would not include the above recited element. For at least these reasons, neither claim 53, nor claim 54 which depends from claim 53, are rendered obvious by Chow, Baum, Perloff, and their combination.

Claim 55 recites, in part:

outputting, as a comparand value, one or more bits of each of the plurality of segments of input data indicated by a combination of the segment-select values and the filter data to be a source of a bit of the comparand value;

Applicant respectfully submits that, for reasons discussed in conjunction with claim 37, even if Chow, Baum, and Perloff could be combined in a manner suggested by the Examiner, their combination still would not include the above recited element. For at least these reasons, claim 55 has not been rendered obvious by Chow, Baum, Perloff, and their combination.

Claim 56 recites in part:

selectively enabling, in response to the plurality of segment-select values, and in response to the filter data, programmed switch circuitry to filter at least one bit of the input data to generate at least one comparand bit for the array of CAM cells.

Applicant respectfully submits that, for reasons discussed in conjunction with claim 37, even if Chow, Baum and Perloff could be combined in a manner suggested by the Examiner, their combination still would not include the above recited element. For at least these reasons, neither claim 56, nor dependent claims 57-58, have been rendered obvious by Chow, Baum, Perloff, and their combination.

Claims 38-39 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chow, Baum and Perloff, further in view of U.S. Patent No. 5,809,330 to Ninomiya. Claims 38-39 depend from claim 37, and therefore include the limitation:

switch circuitry to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit.

As discussed above, neither Chow, Baum or Perloff disclose or suggest the above recited limitation, and applicant respectfully submits that Ninomiya does not teach this limitation either. Therefore, even if Chow, Baum, Perloff and Ninomiya could be combined in a manner suggested by the examiner, their combination still would not disclose or suggest the above recited limitation, and therefore, would not establish a prima facie case for obviousness. For at least these reasons, applicant respectfully submits that claims 38-39 are not rendered obvious by the proposed combination of Chow, Baum, Perloff and Ninomiya.

Claims 40-41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chow, Baum and Perloff, further in view of U.S. Patent Application No. 10/043,964 to Reblewski (hereinafter “Reblewski”). Claims 40-41 depend from claim 37, and therefore include the limitation:

switch circuitry to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit.

As discussed above, neither Chow, Baum or Perloff disclose or suggest this limitation, and applicant respectfully submits that Reblewski does not teach this limitation either. Therefore, even if Chow, Baum, Perloff and Reblewski could be combined in a manner suggested by the examiner, their combination still would not disclose or suggest the above recited limitation, and therefore, would not establish a prima facie case for obviousness. For at least these reasons, applicant respectfully submits that claims 40-41 are not rendered obvious by the proposed combination of Chow, Baum, Perloff and Reblewski.

Claim 45 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chow, Baum and Perloff, further in view of U.S. Patent No. 6,671,771 to Gandini. Claim 45 depends from claim 37, and therefore include the limitation:

switch circuitry to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit.

As discussed above, neither Chow, Baum or Perloff disclose or suggest this limitation, and applicant respectfully submits that Gandini does not teach this limitation either. Therefore, even if Chow, Baum, Perloff and Gandini could be combined in a manner suggested by the examiner, their combination still would not disclose or suggest the above recited limitation, and therefore, would not establish a prima facie case for obviousness. For at least these reasons, applicant respectfully submits that claim 45 is not rendered obvious by the proposed combination of Chow, Baum, Perloff and Gandini.

Claim 50 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chow, Baum and Perloff, further in view of U.S. Patent Publication No.09/861076 to Patti. Claims 50 depends from claim 37, and therefore includes the limitation:

switch circuitry to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit.

As discussed above, neither Chow, Baum or Perloff disclose or suggest this limitation, and applicant respectfully submits that Patti does not teach this limitation either. Therefore, even if Chow, Baum, Perloff and Patti could be combined in a manner suggested by the examiner, their combination still would not disclose or suggest the above recited limitation, and therefore, would not establish a prima facie case for obviousness. For at least these reasons, applicant

respectfully submits that claim 50 is not rendered obvious in view of Chow, Baum, Perloff, Patti, and their combination.

Claims 49 and 51 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Chow, Baum and Perloff, further in view of U.S. Patent Application No. 6,374,326 to Kansal (hereinafter “Kansal”). Claims 49 and 51 depend from claim 37, and therefore include the limitation:

switch circuitry to output, as the comparand value, the selected bits of each of the plurality of segments of input data according to control signals received from the filter circuit and from the select circuit.

As discussed above, neither Chow, Baum or Perloff disclose or suggest this limitation, and applicant respectfully submits that Kansal does not teach this limitation either. Therefore, even if Chow, Baum, Perloff and Kansal could be combined in a manner suggested by the examiner, their combination still would not disclose or suggest the above recited limitation, and therefore, would not establish a prima facie case for obviousness. For at least these reasons, applicant respectfully submits that claims 49 and 51 are not rendered obvious in view of Chow, Baum, Perloff, Kansal, and their combination.

Claim Objections

Applicant acknowledges that claims 52 and 59 would be allowable if rewritten in independent form to include all the limitations of the respective base claims and any intervening claims. In view of the foregoing remarks, applicant respectfully submits that claims 52 and 59 are in condition for allowance without further amendment.

Conclusion

Applicant submits that all pending claims are in condition for allowance. If a telephone interview would be helpful in any way, the examiner is invited to call the undersigned attorney.

Authorization is hereby given to charge deposit account 50-1914 for any fee deficiency associated with this Response.

Respectfully submitted
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